

Project Update: February 2022

Our previous research about the conservation status of bottlenose dolphins in Bocas del Toro, which has been supported by The Rufford Foundation, has shown the vulnerability of this population due to its exposure to boat traffic. Due stress level has not been evaluated yet on these dolphins, we continued the analysis started in 2018 to quantify steroid hormones (cortisol, corticosterone, progesterone, and testosterone) in 39 blubber samples previously collected in Almirante and Dolphin bays (25 samples), where a high boat traffic and tour boat interactions with dolphins have been reported. Additionally, samples from Cayo Zapatilla and Chiriqui Lagoon (14 samples), where a low boat traffic and tour boat interactions we have observed, were used to do comparisons. The hormones were modelled in relation to site, reproductive status, time of day, and tourism season. Preliminary findings suggest that a high level of interaction of boats with free-ranging bottlenose dolphins can affect the metabolic well-being and elicit a stress response. Further analyses are currently ongoing.



One dolphin in Dolphin Bay (Bocas del Toro). © Betzi Pérez.



Bity, an old dolphin female jumping after a whale-watching boat leave. © Dalia C. Barragán-Barrera.



A dolphin-watching boat close to a dolphins' group in Dolphin Bay. © Dalia C. Barragán-Barrera.